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UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH ADMINISTRATION
BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE
WASHINGTON 25, D. C.

In Cooperation with State, Federal and other Agencies

COTTON INSECT CONDITIONS, MAY 28, 1948

(Second Cotton Insect Survey Report for 1948)

During April and May most of the cotton was planted and it has in general made good progress with comparatively little damage from insects.

Boll weevils have been reported in relatively small numbers on seedling cotton in Texas, Louisiana, Mississippi, Georgia and South Carolina. They have probably made their appearance in cotton fields in Virginia, North Carolina, Florida, Alabama, Arkansas, and Oklahoma but no reports about them have been received. The importance of the boll weevil as a pest during 1948 will depend very much on weather conditions during June. Hot dry weather will help to hold them in check but rainy humid weather will be favorable for their rapid increase.

The cotton fleahoppers have as usual made their appearance in rather large numbers in many of the cotton fields in southern Texas and insecticides were used for their control during May. Other insects for which insecticides have been used in various localities but especially in Texas are thrips and the beet armyworm. The latter insect has attracted attention in the Pecos and Presidio valleys of Texas and in other sections of the Southwest including Arizona and California.

In the Lower Rio Grande Valley of Texas during April a small beetle Colaspoides macrocephala caused considerable damage to several hundred acres of seedling cotton in Hidalgo County.

During May the hairy caterpillars or a tiger moth known to entomologists as Callarctia phyllira (Drury) formerly Apantesis phyllira Drury attracted considerable attention in the southwestern part of East Carroll Parish, Louisiana where at least 40 acres of cotton and soybeans were seriously damaged.

This Bureau cooperates with the cotton growing states by furnishing information regarding cotton insect conditions for the weekly reports that are issued by the Experiment Station, Extension and Plant Board entomologists in Texas, Mississippi, Louisiana, Arizona, North Carolina, South Carolina, Oklahoma and possibly other states.

No reports of shortages of insecticides for cotton insect control have been received but the reports indicate that fairly large quantities of calcium arsenate, sulfur, DDT, benzene hexachloride, chlorinated camphene and other insecticides recommended for cotton insect control are now available in the cotton growing states.

No cotton leafworms have as yet been reported. These insects usually make their appearance in Southern Texas during April or May but in some years they do not appear until June.

BOLL WEEVIL

TEXAS: In general the cotton crop is earlier than normal in most areas and little weevil activity has been noted to date. In the Lower Rio Grande Valley more weevils survived the past winter than the winter of 1946-47 but warm dry weather has helped to hold them in check. During the week ending May 22, a total of 5700 squares were examined in 57 fields in Cameron County and 26 were infested with weevils. Twenty-three of the fields had less than 10% punctured squares while the other three ranged from 11% to 25%.

In Wharton County in the upper coastal bend area 64 weevils were collected in the examination of 23,100 cotton plants in 77 fields. Weevils were found at various rates per acre ranging from 0 to 1016 weevils per acre. The average number of weevils found per acre was 41. Twenty-five of the 77 fields were infested. Of the thirty-nine fields located in the open prairie only three were infested while 22 of the 38 fields in the creek and river bottom areas were infested at an average rate of 73 weevils per acre.

In McLennan and Falls counties in the central portion of the state weevils were found in 17 of the 31 cotton fields examined, 63 weevils being found on 12,400 linear feet of row or at the rate of 73 weevils per acre. In 1947 only two fields were inspected during the week ending May 29 and 6 weevils were found at an average rate of approximately 29 weevils per acre. In 1946 weevils were found at an average rate of 711 weevils per acre for the week ending May 31.

LOUISIANA: At Tallulah, Madison Parish, in northeastern Louisiana, boll weevil emergence in hibernation cages during May indicates a much smaller percentage of weevils survived the winter and are emerging this spring than in any recent year. Cotton field inspections made during the last week of May also indicate fewer weevils in the cotton fields at this time than during any year since 1944. A summary of the emergence as compared to past years is shown as follows:

SUMMARY OF PLANT EXAMINATIONS AND EMERGENCE IN HIBERNATION CAGES

Year	May 24 to May 30			
	Number of Plants Examined	Number of Weevils Found	Number of Weevils Per Acre	Percentage of Boll Weevil Emergence in Hibernation Cages from May 1 to May 28
1948*	53,000	242	82	.26
1947	56,000	332	107	.86
1946	41,000	715	314	6.64
1945	49,000	293	108	6.54
1944	32,000	128	72	1.26
1943	62,000	707	205	.46
1942	76,000	184	44	.06
1941	72,000	521	130	8.20
1940	55,000	66	22	.02
1939	55,000	247	81	1.28
1938	50,000	233	84	.60
1937	51,000	133	47	8.28
1936	38,800	32	15	.04
1935	38,000	623	295	.46
1934	37,000	1,109	545	2.60
1933	36,000	458	228	.30
1932	34,600	654	340	4.36

* For the week ending May 28

MISSISSIPPI: In the examination of 55 cotton fields in 8 Delta counties weevils were found in only 6 fields bordering the hill sections of Warren and Yazoo counties in the southern part of the Delta where the heavy weevil infestations are most likely to occur. The inspection records for the week ending May 28 are as follows:

Counties	Fields Examined	Fields Infested	Weevils Per Acre
Bolivar	13	0	
Issaquena	2	0	
Leflore	3	0	
Sharkey	8	0	
Sunflower	12	0	
Warren	3	3	50, 150, 200
Washington	10	0	
Yazoo	4	3	50, 50, 100
	55	6	

In the infested fields there was an average of 100 boll weevils per acre but in all fields examined there was an average of only 11 weevils per acre.

In 1947 the May 30 report indicated that 30 fields were examined in Washington County and two were infested at rates of 50 and 100 weevils per acre, or an average of 75.

GEORGIA: Boll weevils were not reported as seriously abundant in any section of Georgia during May. Examinations were made in cotton fields in 25 counties. No weevils were found in the fields examined in Barrow, Clarke, Elbert, Greene, Hancock, Hart, Jackson, Jefferson, Johnson, Madison, McDuffie, Morgan, Oglethorpe, Screven, Walton and Wilkes counties. In the examination from 400 to 1800 cotton squares in each county, boll weevils were found in 9 counties. Estimating an average of 15,000 plants per acre, boll weevils were found as follows:

Bacon County -	50	weevils per acre
Coffee County -	19	" " "
Bulloch County -	62	" " "
Burke County -	8	" " "
Emmanuel County -	75	" " "
Jenkins County -	34	" " "
Laurens County -	55	" " "
Toombs County -	34	" " "
Washington County -	17	" " "

It is probable that weevils have survived the winter in all of the cotton growing counties of Georgia but many of them have probably not yet emerged from hibernation.

SOUTH CAROLINA: Boll weevils appear to be above average in numbers but less abundant than in 1947. During the last week of May a total of 10,700 cotton plants were examined in 27 cotton fields in the vicinity of Florence and 173 live boll weevils were found in 25 of the fields examined. This computed on a per acre basis averages 1 weevil for each 61 plants or 244 per acre. The number of weevils recorded as compared to past years is as follows:

1948	1	boll weevil	to	61	plants
1947	1	"	"	43	"
1946	1	"	"	50	"
1945	1	"	"	60	"
1944	1	"	"	123	"
1943	1	"	"	175	"
Average	1	"	"	113	"
1948	1	"	"	61	"

The emergence of boll weevils into an early planted trap plot continued at a fairly steady rate during the week. A total of 49 weevils were removed from the plot as compared to 245 during the same week in 1947. There has been a total of 155 boll weevils removed from the trap plot thus far as compared to 401 in 1947.

Only one weevil emerged from the 10 hibernation cages during the week as compared to 7 in 1947. A total of 4 weevils have emerged to date as compared to 139 during the same period in 1947.

MISCELLANEOUS COTTON INSECTS

TEXAS: During the week ending May 28, only one cotton fleahopper emerged from 16 cages under observation. This brings the seasonal total to 19,118. At this time in 1947 and 1946, totals of 10,099 and 8,461, respectively, had emerged. However, there were 17 cages used for the year 1947 and 29 for 1946.

A total of 304 adults and 39 nymphs were observed on cotton during the week as the boll weevil inspections were being made in McLennan and Falls Counties. Fleahoppers were found in 27 of the 31 inspected fields. They were found at the rate of approximately 4 fleahoppers per 100 linear feet.

In Wharton County, 23,100 terminal buds inspected in 77 fields showed an average of 23 fleahoppers per 100 terminals. The range was from 3 to 127 per 100 terminals.

In Calhoun County, 4,800 terminal buds inspected showed an average of 59 fleahoppers per 100 terminals. The range was from 12 to 127.

Thrips were reported during May as being present in damaging numbers in cotton fields in some parts of the Lower Rio Grande Valley and insecticides were used to check them on a number of farms.

Colaspoides macrocephala Schaef. A leaf beetle belonging to the family Crysomelidae destroyed seedling cotton in the vicinity of Mission, Hidalgo County in the Lower Rio Grande Valley of Texas during April. On April 24, R. L. McGarr, San Benito, reported "light to severe injury to a few hundred acres of cotton on new or first land. In some cases all the plants were destroyed except the bottom portion of the main stem." This beetle has on numerous occasions been reported in previous years as a pest of cotton in the Lower Rio Grande Valley and in Mexico.

MISSISSIPPI: Aphids were found in 31 fields, but in only one was the infestation severe enough to cause damage and parasites and predators appeared to have the infestation under control.

Thrips damage has been apparent in most Delta fields with the damage being regarded as severe in 10 of 34 fields recorded as being infested. Most fields were infested but damage was too slight in some to warrant recording.

The tarnished plant bug was observed in 20 fields, the rapid plant bug in 4 fields and Neurocolpus sp. in 1 field of cotton.

LOUISIANA: In the southwestern portion of East Carroll Parish, caterpillars of one of the tiger moths, Callarctia phyllira (Drury) destroyed several acres of cotton in one field and several acres of soybeans in another. However, it is doubtful if enough caterpillars are present to destroy the cotton in those fields. The caterpillars were submitted by R. C. Gaines, Tallulah, Louisiana and were identified by H. W. Capps of the Division of Insect Identification.

Tarnished and rapid plant bugs are more numerous than normal on cotton and some damage has been observed.

Cotton in fields that have been heavily infested with thrips is now beginning to recover.

GEORGIA: Thrips damage to cotton has been observed in fields in several counties but no commercial injury has been reported. In the southern part of the State some cutworm injury to the cotton stands in spotted areas in some fields was noted during May. Cotton aphids have been observed but no damage from these insects has been reported.

SOUTH CAROLINA: Cotton aphid infestations have been common and in many fields they have caused damage and in some fields serious damage. A number of farmers have dusted their cotton for control. Parasites and predators are now increasing and with favorable weather the lice problem should end during the next week.

Root aphid did some damage near Mayesville, South Carolina. Other infestations were reported.

Thrips are leaving the oat fields and beginning to attack cotton.

INSECTS ON IRRIGATED COTTON OF THE SOUTHWEST

ARIZONA: Beet armyworms were reported in damaging numbers in several cotton fields in the Salt River Valley and the Casa Grande area. The most serious infestations were reported from the Marana area in the Santa Cruz Valley, where 100 acres of cotton were sprayed with a DDT concentrated spray for their control. Several fields were irrigated for control of beet armyworms in the area.

Heavy infestations of thrips on cotton were reported in the Sahuarita area south of Tucson.

TEXAS: Cotton continues to show considerable thrip injury with some fields severely damaged. Applications of 5% DDT - sulfur were continued in a few fields for control of the insect. It is believed that the dust applications made during the past week were too late for best results.

Reports have been received that serious infestations of the beet armyworm have occurred in the Presidio and Pecos Valleys. There has been little damage from this insect in the El Paso Valley.

CALIFORNIA: On May 18, R. E. Campbell, Entomologist, Alhambra, California reported: "The beet armyworm is damaging cotton, alfalfa and grapes in the Coachella Valley. Growers are using 10% DDT. Onion thrips and flower thrips are numerous on cotton in the Coachella Valley."

PREPARED MAY 4, 1948

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